Docket No. AUS9-2000-0629-US1 *PATENT*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Kirby et al.**

Serial No. **09/692,365**

Filed: **October 19, 2000**

For: **Method and Apparatus for Dynamic Retention of System Area Network Management Information in Non-Volatile Store**

§
§ Group Art Unit: **2154**
§
§ Examiner: **Patel, Ashokkumar B.**
§
§
§
§

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Certificate of Transmission Under 37 C.F.R. § 1.8(a)
I hereby certify this correspondence is being transmitted via facsimile to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, facsimile number (571) 273-8300 on November 18, 2005.

By: _____
For Amelia G. Turner

APPEAL BRIEF (37 C.F.R. 41.37)

This brief is in furtherance of the Notice of Appeal, filed in this case on August 19, 2005.

The fees required under § 41.20(B)(2), and any required petition for extension of time for filing this brief and fees therefore, are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

REAL PARTY IN INTEREST

The real party in interest in this appeal is the following party: International Business Machines Corporation, as reflected in the Assignment recorded on October 19, 2000, at Reel 011290, Frame 0864.

RELATED APPEALS AND INTERFERENCES

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal, there are no such appeals or interferences.

STATUS OF CLAIMS

A. TOTAL NUMBER OF CLAIMS IN APPLICATION

Claims in the application are: 1-27.

B. STATUS OF ALL THE CLAIMS IN APPLICATION

1. Claims canceled: None.
2. Claims withdrawn from consideration but not canceled: None.
3. Claims pending: 1-27.
4. Claims allowed: None.
5. Claims rejected: 1-27.

C. CLAIMS ON APPEAL

The claims on appeal are: 1-27.

STATUS OF AMENDMENTS

There are no amendments after the Final Rejection that was mailed June 17, 2005.

SUMMARY OF CLAIMED SUBJECT MATTER

Applicants' independent claim 1 describes a method in a network computing system for managing configuration information for a set of components in a network computing system. The method includes storing the configuration information for the set of components in the network computing system to form stored configuration information (Specification page 30, lines 1-6.), responsive to a power cycle (Specification page 5, lines 7-8.), obtaining current configuration information from the set of components (Specification page 30, line 30, through page 31, line 2.), comparing the current configuration information with the stored configuration information to form a comparison (Specification 5, lines 9-11 and page 31, lines 6-13.), and updating the stored configuration information if a difference is present in the comparison (Specification page 31, lines 13-16.).

Applicants' independent claim 8 describes a method in a network computing system for managing configuration information in the network computing system. The method includes discovering a component at a location on the network computing system (Specification page 26, lines 15-17.), determining whether the component was previously in the location (Specification page 27, lines 29-31.), configuring the component using previously stored configuration information for the component if the component was previously in the location (Specification page 28, lines 4-6.), and configuring the component without the previously stored configuration information if the component was not previously in the location (Specification page 28, line 20, through page 28, line 31.).

Applicants' independent claim 9 describes a method in a network computing system for managing configuration information the network computing system. The method includes discovering a component at a location on the network computing system (Specification page 26, lines 15-17 and page 32, lines 17-18.), determining whether stored configuration information is present at the component (Specification page 30, lines 8-14.), responsive to the stored configuration information being present at the component, reading the stored configuration information (Specification page 30, line 30, through page 31, line 2.), configuring the stored configuration information (Specification page 33, lines 14-20.), determining whether changes to a configuration of the component are present, and responsive to changes being present

(Specification page 33, lines 11-14 and Figure 1.), updating the changes to the stored configuration information in the component (Specification page 5, lines 11-14 and page 33, lines 14-17.).

Applicants' independent claim 11 describes a data processing system. The data processing system includes a bus system, a communications adapter connected to the bus system, a memory including a set of instructions connected to the bus system, and a processing unit connected to the bus system (Specification page 10, line 8 through page 13, line 13.). The processing unit executes the set of instructions to store the configuration information for the set of components in the network computing system to form stored configuration information (Specification page 30, lines 1-6.), obtain current configuration information from the set of components responsive to a power cycle (Specification page 5, lines 7-8.), compare the current configuration information with the stored configuration information to form a comparison (Specification 5, lines 9-11 and page 31, lines 6-13.), and update the stored configuration information if a difference is present in the comparison (Specification page 31, lines 13-16.).

Applicants' independent claim 15 describes a network computing system for managing configuration information. The network computing system includes storing means for storing the configuration information for a set of components in the network computing system to form stored configuration information (Specification page 30, lines 1-6 and Figure 1.), obtaining means, responsive to a power cycle (Specification page 5, lines 7-8.), for obtaining current configuration information from the set of components (Specification page 30, line 30 through page 31 line 2 and Figure 1.), comparing means for comparing the current configuration information with the stored configuration information to form a comparison (Specification 5, lines 9-11 and page 31, lines 6-13 and Figure 1.), and updating means for updating the stored configuration information if a difference is present in the comparison (Specification page 31, lines 13-16. and Figure 1).

Applicants' independent claim 22 describes a data processing system in a network computing system for managing configuration information. The data processing system includes discovering means for discovering a component at a location on the network computing system (Specification page 26, lines 15-17 and Figure 1.), determining means for determining whether the component was previously in the location (Specification page 27, lines 29-31 and Figure 1.),

first configuring means for configuring the component using previously stored configuration information for the component if the component was previously in the location (Specification page 28, lines 4-6 and Figure 1.), and second configuring means for configuring the component without the previously stored configuration information if the component was not previously in the location (Specification page 28, line 20, through page 28, line 1 and Figure 31.).

Applicants' independent claim 23 describes a data processing system in a network computing system for managing configuration information the network computing system. The data processing system includes discovering means for discovering a component at a location on the network computing system (Specification page 26, lines 15-17 and page 32, lines 17-18 and Figure 1.), first determining means for determining whether stored configuration information is present at the component (Specification page 30, lines 9-15 and Figure 1.), reading means, responsive to the stored configuration information being present at the component, for reading the stored configuration information (Specification page 30, line 30, through page 31, line 2 and Figure 1.), configuring means for configuring the stored configuration information (Specification page 33, lines 14-20 and Figure 1.), second determining means for determining whether changes to a configuration of the component are present, and updating means (Specification page 33, lines 11-14 and Figure 1.), responsive to changes being present, for updating the changes to the stored configuration information in the component (Specification page 5, lines 11-14 and page 33, lines 14-17 and Figure 1.).

Applicants' independent claim 25 describes a computer program product in a computer readable medium for use in a network computing system for managing configuration information for a set of components in a network computing system. The computer program product includes first instructions for storing the configuration information for the set of components in the network computing system to form stored configuration information (Specification page 30, lines 1-6 and page 34, line 27 through page 35 line 14.), second instructions for responsive to a power cycle (Specification page 5, lines 7-8 and page 34, line 27 through page 35 line 14.), obtaining current configuration information from the set of components (Specification page 30, line 30, through page 31, line 2 and page 34, line 27 through page 35 line 14.), third instructions for comparing the current configuration information with the stored configuration information to form a comparison (Specification 5, lines 9-11 and page 31, lines 6-13 and page 34, line 27

through page 35 line 14.), and fourth instructions for updating the stored configuration information if a difference is present in the comparison (Specification page 31, lines 13-16 and page 34, line 27 through page 35 line 14.).

Applicants' independent claim 26 describes a computer program product in a computer readable medium for use in a network computing system for managing configuration information in the network computing system. The computer program product includes first instructions for discovering a component at a location on the network computing system (Specification page 26, lines 15-17 and page 34, line 27 through page 35 line 14.), second instructions for determining whether the component was previously in the location (Specification page 27, lines 29-31 and page 34, line 27 through page 35 line 14.), third instructions for configuring the component using previously stored configuration information for the component if the component was previously in the location (Specification page 28, lines 4-6 and page 34, line 27 through page 35 line 14.), and fourth instructions for configuring the component without the previously stored configuration information if the component was not previously in the location (Specification page 28, line 20, through page 28, line 31 and page 34, line 27 through page 35 line 14.).

Applicants' independent claim 27 describes a computer program product in a computer readable medium for use in a network computing system for managing configuration information the network computing system. The computer program product includes first instructions for discovering a component at a location on the network computing system (Specification page 26, lines 15-17, page 32, lines 17-18, and page 34, line 27 through page 35 line 14.), second instructions for determining whether stored configuration information is present at the component (Specification page 30, lines 9-15 and page 34, line 27 through page 35 line 14.), third instructions for responsive to the stored configuration information being present at the component, reading the stored configuration information (Specification page 30, line 30, through page 31, line 2 and page 34, line 27 through page 35 line 14.), fourth instructions for configuring the stored configuration information (Specification page 33, lines 14-20 and page 34, line 27 through page 35 line 14.), fifth instructions for determining whether changes to a configuration of the component are present, and sixth instructions for responsive to changes being present, updating the changes to the stored configuration information in the component (Specification page 5, lines 11-14, page 33, lines 14-17, and page 34, line 27 through page 35 line 14.).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. GROUND OF REJECTION 1 (Claims 1-10 and 15-27)

Claims 1-10 and 15-27 stand finally rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,496,503 issued to Pelissier.

B. GROUND OF REJECTION 2 (Claims 11-14)

Claims 11-14 stand finally rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,694,361 issued to Shah in view of U.S. Patent 6,496,503 issued to Pelissier.

ARGUMENT

A. GROUND OF REJECTION 1 (Claims 1-10 and 15-27)

Claims 1-10 and 15-27 stand finally rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,496,503 issued to Pelissier. This position is not well founded.

Applicants' claims 1, 11, 15, and 25 describe responsive to a power cycle, obtaining current configuration information from a set of components, comparing the current configuration information with stored configuration information to form a comparison, and updating the stored configuration information if a difference is present in the comparison.

Pelissier does not teach obtaining current configuration information from a set of components in a network computing system in response to a power cycle, comparing the current configuration information with stored configuration information to form a comparison, or updating stored configuration information if a difference is present in the comparison.

Pelissier teaches a system for device initialization and operation using directed routing. With the system of Pelissier, devices in the network power-up without individual addresses assigned to them and without forwarding databases. Each device is not responsible for learning the topology of the network or generating its own forwarding database. Rather, a central network manager discovers the topology of the network, assigning addresses to each device, generating forwarding databases for each device, and then initializing each device by providing the assigned address and the forwarding database to each device for storage.

In order to perform these functions, the system of Pelissier routes management cells through a network or fabric whose configuration is unknown. These management cells are routed through an unconfigured or partially configured network using explicit routing to initialize or configure each device. After the devices in the network have been configured, subsequent cells can be routed through the newly configured devices using the more efficient destination address routing technique because each device would now have a forwarding database.

The management cell includes a destination address that identifies a permissive address, i.e. a global address that is interpreted by devices in the network as being explicitly addressed to that device. When a switch receives a management cell with a permissive address, the switch examines several variables to determine the next hop of an explicit route (column 3, lines 48-54). The

explicit route is an explicit list of port numbers that the cell is to traverse during the explicit phase of its transition through the network (column 5, lines 55-58). The determination of the next hop, with regard to a permissive address being in the destination address of the management cell, involves identifying the port number associated with the switch manager or the switch that received the management cell (column 7, lines1-12). The management cell includes two arrays, IPATH() and RPATH() which store port numbers associated with the hops that the cell encounters during its outbound and return paths (column 7, lines 59-64). It is these arrays that permit the network manager to discover the topology of the network.

Nowhere in Pelissier is there any teaching that, responsive to a power cycle, current configuration information from a set of components in a network computing system is obtained and compared to stored configuration information to determine if there are differences and, if there are, the stored configuration information is updated. To the contrary, Pelissier merely teaches sending out management cells which compile lists of port numbers for switches through which the management cells are routed in both an outbound and return path. There is no comparison of these port numbers to anything. The only comparison even mentioned in Pelissier is the comparison of a hop pointer to a hop count to determine if a cell has reached the end of an explicit route (column 11, lines 17-19). This does not compare current configuration information for a set of components in a network computing system to stored configuration information of the set of components. It is merely a comparison of a hop count to a maximum number of hops value.

In the Examiner's Final Action mailed June 17, 2005, page 3, second paragraph, the Examiner referred to column 12, lines 52-63, of Pelissier, which states "the devices in the network power-up without specific MAC addresses assigned to them (i.e., without MAC addresses assigned to their Switch Managers 204) and without a forwarding database. According to an embodiment of the invention, the devices power-up with the permissive address initially assigned to the switch manager 204. A hardware vendor may provide a Device GUID or other device information in the device, which may be read or queried by manager 150 even before the device is initialized".

Although this section does refer to powering-up devices, it does not teach obtaining current configuration information responsive to a power cycle. Column 12, lines 52-63 of Pelissier teaches two separate things. It teaches the devices powering-up without specific MAC addresses assigned to them, and it teaches a situation where a vendor may provide a Device GUID or other device

information in the device which may be read or queried by manager 150 even before the device is initialized. Pelissier does not teach that these two things are related in any way. For example, Pelissier does not teach that the device is queried to obtain the device information when the device is powered-up.

In the Examiner's Final Action on page 3, third paragraph, the Examiner referred to column 8, lines 52-57, which states "a management cell can be used to query or update data objects in a targeted device". This section of Pelissier does not teach obtaining current configuration information responsive to a power cycle. Merely being able to query or update data objects does not teach obtaining current configuration information responsive to a power cycle. Teaching querying or updating a data object does not teach obtaining current configuration information. And, it does not teach obtaining this information responsive to a power cycle.

Applicants claim obtaining current configuration information responsive to a power cycle. Pelissier does not teach obtaining current configuration information responsive to a power cycle. Therefore, Pelissier does not anticipate Applicants' claims.

Applicants claim comparing the current configuration information with the stored configuration information to form a comparison. Pelissier does not teach a comparison.

The Office Action mailed March 17, 2004 alleges that Pelissier teaches the features of claim 1 at column 4, lines 23-44, column 8, lines 46-67, column 9, lines 1-58 and in Figure 4. This section of Pelissier merely teaches a central network manager that learns the network topology and initializes or configures each of the switches by assigning their MAC addresses and loading their forwarding databases. Nothing in this section of Pelissier teaches any comparison of current configuration information obtained, in response to a power cycle, to stored configuration information for a set of components of a network computing system. Nothing in this section of Pelissier teaches anything regarding updating stored configuration information for a set of components of a network computing system if a difference is found in a comparison of current configuration information with stored configuration information.

Column 8, lines 46-67 of Pelissier merely teaches that a cell may include a Hop Pointer, a Hop Count, a direction field, a destination address field, a source address field, a source MAC field, a destination MAC field, an IPATH() array, and a RPATH() array. Nothing in this section of Pelissier teaches anything regarding a comparison of current configuration information

obtained, in response to a power cycle, to stored configuration information for a set of components of a network computing system. Nothing in this section of Pelissier teaches anything regarding updating stored configuration information for a set of components of a network computing system if a difference is found in a comparison of current configuration information with stored configuration information.

As discussed above, the Hop pointer is merely a maximum number of hops. The hop count is the current number of hops the cell has traversed in the path. The direction field merely identifies inbound or outbound. The destination address identifies either a specific device address or a permissive address, as discussed above. The source address identifies the source of the management cell and the SMAC and DMAC fields identify the MAC addresses of the source and destination. As mentioned above, the IPATH() and RPATH() arrays identify the port numbers encountered by the cell in its outbound and return paths. Thus, nothing in the description of these fields teaches anything regarding the features of claim 1 of the present application.

Column 9, lines 1-58 of Pelissier merely teach that the central network manager may set the MAC address or query the MAC address of a device and that an entry in a device's forwarding database may be queried or updated by the central network manager. However, there is no teaching or even mention of any comparisons in this, or any other, section of Pelissier. Pelissier never compares current configuration information for a set of components of a network computing system to stored configuration information for the set of components in order to determine if there are any differences and, if so, update the stored configuration information. Pelissier uses a management cell to compile a list of port numbers as it is routed through a directed path. Pelissier does not perform any comparisons or updates based on the results of any comparisons.

Figure 4 of Pelissier merely illustrates the cell discussed above. The illustration in Figure 4 is merely a plurality of boxes labeled with the various fields of a cell as previously discussed and thus, does not add any new information beyond that which has been addressed above. Thus, in view of the above, Applicants respectfully submit that Pelissier does not teach each and every feature of independent claim 1 as is required under 35 U.S.C. § 102(e).

Similar distinctions apply to the other rejected independent claims 11, 15 and 25. Each of these claims recite obtaining current configuration information for a set of components of a

network computing system in response to a power cycle, comparing the current configuration information to stored configuration information for the set of components, and updating the stored configuration information if a difference is present in the comparison. As set forth above Pelissier does not teach these features.

Applicants' claims 8, 22, and 26 describe discovering a component at a location and determining whether the component was previously in the location, configuring the component using previously stored configuration information for the component if the component was previously in the location, and configuring the component without the previously stored configuration information if the component was not previously in the location.

Regarding independent claims 8, 22 and 26, Pelissier does not teach determining whether a component was previously in a location, configuring the component using previously stored configuration information for the component if the component was previously in the location, or configuring the component without the previously stored configuration information if the component was not previously in the location.

While Pelissier permits network discovery in an unconfigured or partially configured network, there is no teaching or suggestion in Pelissier regarding any determination as to whether a particular component was at a location in the network previously and, depending upon the results of the determination, either configuring the component with previously stored configuration information or not, as recited in claims 8, 22 and 26. To the contrary, the network discovery described in Pelissier merely sends out management cells which compile a list of port numbers in their arrays to thereby discover the network topology. The devices may then be configured by assigning a MAC address and a forwarding database to the device. This configuration does not include any determination as to whether the device was previously at this location or not and if so, using previously stored configuration information.

Regarding this claim, in the Examiner's Final Action on page 3, third paragraph, the Examiner referred to column 8, lines 52-57, which states "a management cell can be used to query or update data objects in a targeted device". This section of Pelissier does not teach determining whether a component was previously in a location. Merely querying or updating a data object does not teach determining whether a component was previously in a location. Applicants'

claim describes more than just querying an object. Applicants claim determining whether a component was previously at a location.

The cited section of Pelissier also does not teach configuring the component using previously stored configuration information for the component if the component was previously in the location. Querying or updating a data object does not teach Applicants' claimed feature.

The cited section of Pelissier also does not teach configuring the component without previously stored configuration information if the component was not previously in the location. Querying or updating a data object does not teach Applicants' claimed feature.

Pelissier does not teach the features of independent claims 8, 22, or 26. Therefore, Pelissier does not anticipate these claims.

Applicants' clams 9, 23, and 27 describe discovering a component at a location and determining whether the component was previously in the location, responsive to the stored configuration information being present at the component, reading the stored configuration information, configuring the stored information, determining whether changes to a configuration of the component are present, and responsive to changes being present, updating the changes to the stored information.

With regard to independent claims 9, 23 and 27, Pelissier does not teach determining if there is stored configuration information present in a component, determining whether changes to a configuration of the component are present, and if so, updating the changes to the stored configuration information in the component. As discussed at length above, Pelissier merely teaches the sending of management cells through a directed path to thereby compile lists of port numbers from switches corresponding to the path taken by the management cell. Pelissier teaches assigning MAC addresses to devices and providing the devices with forwarding databases based on the topology determined using the management cells, but says nothing regarding determining if a component has configuration information, determining if the configuration of a component has changed, or updating configuration information in a component if the configuration of the component has changed.

Thus, in view of the above, Applicants respectfully submit that Pelissier does not teach each and every feature of independent claims 1, 8, 9, 11, 15, 22, 23, 25 26 and 27 as is required under 35 U.S.C. § 102(e). At least by virtue of their dependency on claims 1, 9, 11, 15 and 23,

respectively, Pelissier does not teach each and every feature of dependent claims 2-7, 10, 12-14, 16-21 or 24.

B. GROUND OF REJECTION 2 (Claims 11-14)

Claims 11-14 stand finally rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,694,361 issued to Shah in view of U.S. Patent 6,496,503 issued to Pelissier. This position is not well founded.

The Pelissier reference, and its application to the features of claim 11 have been discussed above. Shah does not provide for the deficiencies in Pelissier as noted above. That is, like Pelissier, Shah fails to teach obtaining current configuration information from a set of components in a network computing system in response to a power cycle, comparing the current configuration information to stored configuration information for the set of components, or updating the stored configuration information if a difference is present in the comparison.

Shah teaches a methodology for assigning multiple local identifiers (LIDs) to ports in a cluster. With the method of Shah, a subnet manager performs a topology discovery of the cluster and detects ports associated with the fabric. The subnet manager then computes a minimal spanning tree for the cluster which connects every port to every other port through a single path. The subnet manager then assigns a single base LID to each port and programs the assigned LIDs into forwarding tables in the fabric. Additional LIDs are reserved for each port while the single base LID is assigned to each port such that the fabric is functional and connected when the subnet manager is performing a path analysis of the cluster.

Shah teaches work queues formed in pairs including send queues and receive queues which are located in channel adapters of a host system (column 3, lines 29-47 and column 6, lines 22-43). Shah also teaches a subnet manager that assigns unique addresses to all channel adapter ports. Shah further teaches a partition manager as part of the subnet manager that assigns partition keys to the fabric agents (column 7, lines 23-42). However, nowhere in Shah is there any teaching or suggestion regarding obtaining current configuration information from a set of components in a network computing system in response to a power cycle, comparing the current configuration information to stored configuration information for the set of components, or updating the stored configuration information if a difference is present in the comparison.

The Office Action erroneously relies upon Pelissier to provide these teachings which it does not, as discussed above.

Thus, even if Shah were combinable with Pelissier as alleged by the Office Action, the result still would not be the invention as recited in claim 11 since neither reference teaches or suggests obtaining current configuration information from a set of components in a network computing system in response to a power cycle, comparing the current configuration information to stored configuration information for the set of components, or updating the stored configuration information if a difference is present in the comparison. Since neither reference teaches these features, any alleged combination of the references still would not teach these features. Therefore, the invention as recited in claim 11 is not obvious in view of the alleged combination of Pelissier and Shah.

In view of the above, Applicants respectfully submit that Pelissier and Shah, whether taken alone or in combination, do not teach or suggest the features recited in independent claim 11. At least by virtue of their dependency on claim 11, neither Pelissier nor Shah, either alone or in combination, teach or suggest the features of dependent claims 12-14.

C. CONCLUSION

Pelissier does not anticipate claims 1-10 and 15-27. Pelissier does not teach the features of independent claims 1, 11, 15, and 25 or the claims that depend from these independent claims. Pelissier does not teach obtaining current configuration information from a set of components in a network computing system in response to a power cycle, comparing the current configuration information with stored configuration information to form a comparison, or updating stored configuration information if a difference is present in the comparison.

Pelissier does not anticipate independent claims 8, 22, and 26. Pelissier does not teach determining whether a component was previously in a location, configuring the component using previously stored configuration information for the component if the component was previously in the location, or configuring the component without previously stored configuration information if the component was not previously in the location.

Pelissier does not anticipate independent claims 9, 23, and 27. Pelissier does not teach determining if there is stored configuration information present in a component, determining

network computing system in response to a power cycle, comparing the current configuration information with stored configuration information to form a comparison, or updating stored configuration information if a difference is present in the comparison.

Therefore, Applicants' claims are believed to be patentable over the cited prior art.

Lisa L.B. Yociss
Reg. No. 36,975
YEE & ASSOCIATES, P.C.
PO Box 802333
Dallas, TX 75380
(972) 385-8777

CLAIMS APPENDIX

The text of the claims involved in the appeal are:

1. A method in a network computing system for managing configuration information for a set of components in a network computing system, the method comprising:

storing the configuration information for the set of components in the network computing system to form stored configuration information;

responsive to a power cycle, obtaining current configuration information from the set of components;

comparing the current configuration information with the stored configuration information to form a comparison;

updating the stored configuration information if a difference is present in the comparison.

2. The method of claim 1, wherein the network computing system is a system area network.

3. The method of claim 1, wherein the storing step comprises:

storing the configuration information at a node in the network computing system where the subnet manager resides.

4. The method of claim 1, wherein the storing step comprises:

storing configuration information associated with a component along with the component.

5. The method of claim 1, wherein the stored configuration information is stored in one of a non-volatile random access memory, a hard disk drive, and an optical disk.

6. The method of claim 1, wherein the set of components are a set of nodes.

7. The method of claim 1, wherein the set of components are a set of devices within nodes.

8. A method in a network computing system for managing configuration information in the network computing system, the method comprising:

discovering a component at a location on the network computing system;

determining whether the component was previously in the location;

configuring the component using previously stored configuration information for the component if the component was previously in the location; and

configuring the component without the previously stored configuration information if the component was not previously in the location.

9. A method in a network computing system for managing configuration information the network computing system, the method comprising:

discovering a component at a location on the network computing system;

determining whether stored configuration information is present at the component;

responsive to the stored configuration information being present at the component, reading the stored configuration information;

configuring the stored configuration information;

determining whether changes to a configuration of the component are present; and

responsive to changes being present, updating the changes to the stored configuration information in the component.

10. The method of claim 9, wherein the updating step comprises:

correcting for conflicts in the configuration of the component using the stored configuration information to form changed configuration information;

saving the changed configuration information at the component.

11. A data processing system comprising:

a bus system;

a communications adapter connected to the bus system;

a memory including a set of instructions connected to the bus system;

a processing unit connected to the bus system, wherein the processing unit executes the set of instructions to store the configuration information for the set of components in the network computing system to form stored configuration information; obtain current configuration information from the set of components responsive to a power cycle; compare the current configuration information with the stored configuration information to form a comparison; and update the stored configuration information if a difference is present in the comparison.

12. The data processing system of claim 11, wherein the processor unit includes a set of processors.

13. The data processing system of claim 11, wherein the processor unit includes a single processor.

14. The data processing system of claim 11, wherein the bus system includes a primary bus and a secondary bus.

15. A network computing system for managing configuration information, the network computing system comprising:

storing means for storing the configuration information for a set of components in the network computing system to form stored configuration information;

obtaining means, responsive to a power cycle, for obtaining current configuration information from the set of components;

comparing means for comparing the current configuration information with the stored configuration information to form a comparison;

updating means for updating the stored configuration information if a difference is present in the comparison.

16. The network computing system of claim 15, wherein the network computing system is a system area network.

17. The network computing system of claim 15, wherein the storing means comprises:

second storing means for storing the configuration information at a node in the network computing system where the subnet manager resides.

18. The network computing system of claim 15, wherein the storing means comprises:

second storing means for storing configuration information associated with a component along with the component.

19. The network computing system of claim 15, wherein the stored configuration information is stored in one of a non-volatile random access memory, a hard disk drive, and an optical disk.

20. The network computing system of claim 15, wherein the set of components are a set of nodes.

21. The network computing system of claim 15, wherein the set of components are a set of devices within nodes.

22. A data processing system in a network computing system for managing configuration information comprising:

discovering means for discovering a component at a location on the network computing system;

determining means for determining whether the component was previously in the location;

first configuring means for configuring the component using previously stored configuration information for the component if the component was previously in the location; and

second configuring means for configuring the component without the previously stored configuration information if the component was not previously in the location.

23. A data processing system in a network computing system for managing configuration information the network computing system comprising:

discovering means for discovering a component at a location on the network computing system;

first determining means for determining whether stored configuration information is present at the component;

reading means, responsive to the stored configuration information being present at the component, for reading the stored configuration information;

configuring means for configuring the stored configuration information;

second determining means for determining whether changes to a configuration of the component are present; and

updating means, responsive to changes being present, for updating the changes to the stored configuration information in the component.

24. The data processing system of claim 23, wherein the updating means comprises:

correcting means for correcting for conflicts in the configuration of the component using the stored configuration information to form changed configuration information;

saving means for saving the changed configuration information at the component.

25. A computer program product in a computer readable medium for use in a network computing system for managing configuration information for a set of components in a network computing system, the computer program product comprising:

first instructions for storing the configuration information for the set of components in the network computing system to form stored configuration information;

second instructions for responsive to a power cycle, obtaining current configuration information from the set of components;

third instructions for comparing the current configuration information with the stored configuration information to form a comparison;

fourth instructions for updating the stored configuration information if a difference is present in the comparison.

26. A computer program product in a computer readable medium for use in a network computing system for managing configuration information in the network computing system, the computer program product comprising:

first instructions for discovering a component at a location on the network computing system;

second instructions for determining whether the component was previously in the location;

third instructions for configuring the component using previously stored configuration information for the component if the component was previously in the location; and

fourth instructions for configuring the component without the previously stored configuration information if the component was not previously in the location.

27. A computer program product in a computer readable medium for use in a network computing system for managing configuration information the network computing system, the computer program product comprising:

first instructions for discovering a component at a location on the network computing system;

second instructions for determining whether stored configuration information is present at the component;

third instructions for responsive to the stored configuration information being present at the component, reading the stored configuration information;

fourth instructions for configuring the stored configuration information;

fifth instructions for determining whether changes to a configuration of the component are present; and

sixth instructions for responsive to changes being present, updating the changes to the stored configuration information in the component.

This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☐ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.
As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.